ESSLIMIT Project Overview

Nurnberg, 27 April 2012

Output datasets and what we can do with them

Some results from exploratory analysis

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Project Overview

- **Participants** → **15 countries National Statistical Agencies**
- **Purpose** → **Using linked datasets to study ICT issues** (innovation productivity, employment, industry dynamics)
- **Datasets** → **Bus Register, Prod Statistics (SBS), E-commerce, CIS** (2001-2009)
- **Methods** → **Distributed micro data analysis** (execution of common code on confidential data, using harmonized metadata)
- **Output** → **Research Papers, Multi-country moment dataset** (accessible for research purposes through NSIs)

Output tables

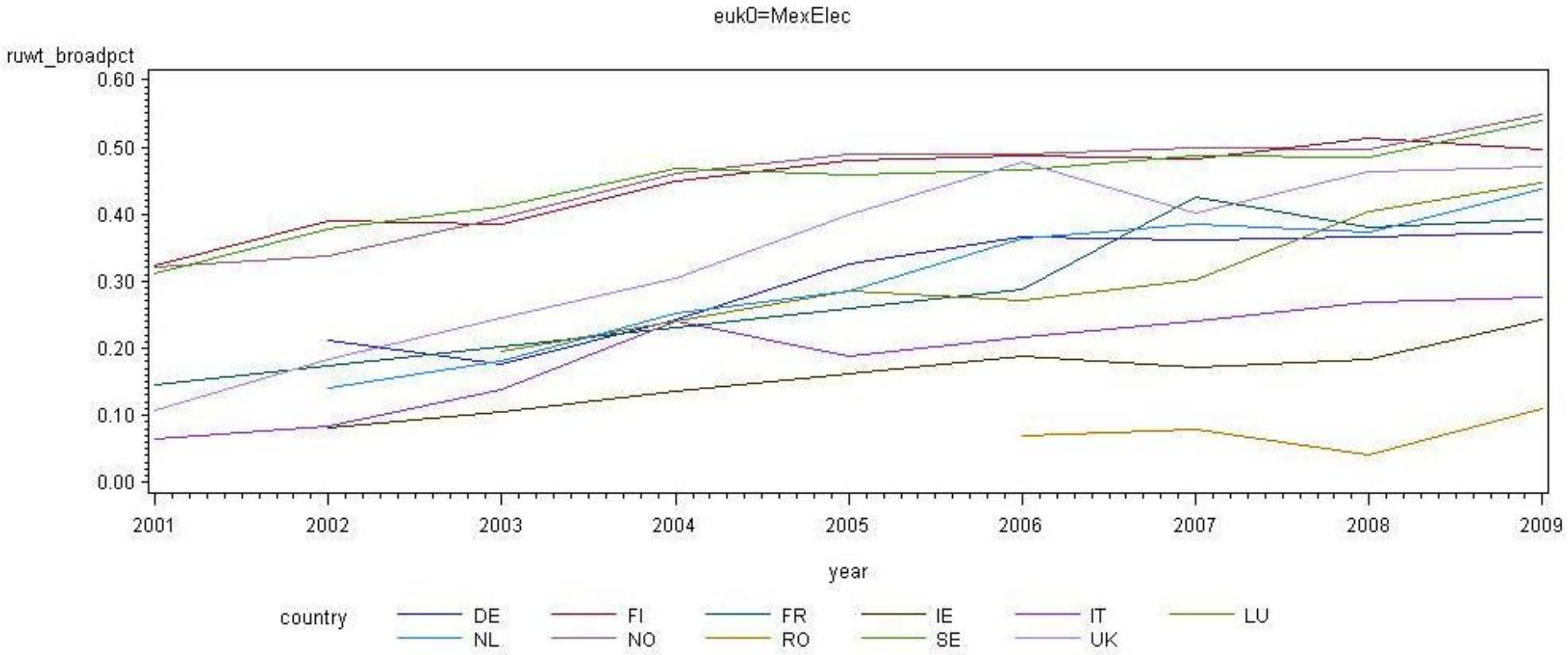
- **Dataset features** → **COVERAGE** (SBS, joint sample)
- **Industry features** → **PSSTAT, INDDYN, DEMOGR;** (productivity indicators, industry dynamics, firm demographic)s
- **ICT maturity** → **ECSTAT** (internet, e-commerce, IT systems)
- **Innovative behaviour** → **ISSTAT** (innovation types & impacts, R&D expenditure…)
- **Correlations, quartile moments** → **PSCR PSST** (means, std of vars by quartile, means/std of vars by quartile of other var)
- **Economic structure, ICT usage, Innovative behaviour & performance** → **EC/IS/PS JOINT, REGw, REGinnov** (joint probabilities, regressions)

Project Progress

- **Code v3.1.1** → **Run by 12 countries , delivery April 10**
- **Analysis** → **preliminary, descriptive;** (some cross country descriptive statistics, and 2-country tests for exports)
- **To be done** → **Long-Panels, Merging Industry Data, Adding Export data, Inferring innovative firm-level indicator**

Broadband enabled workers

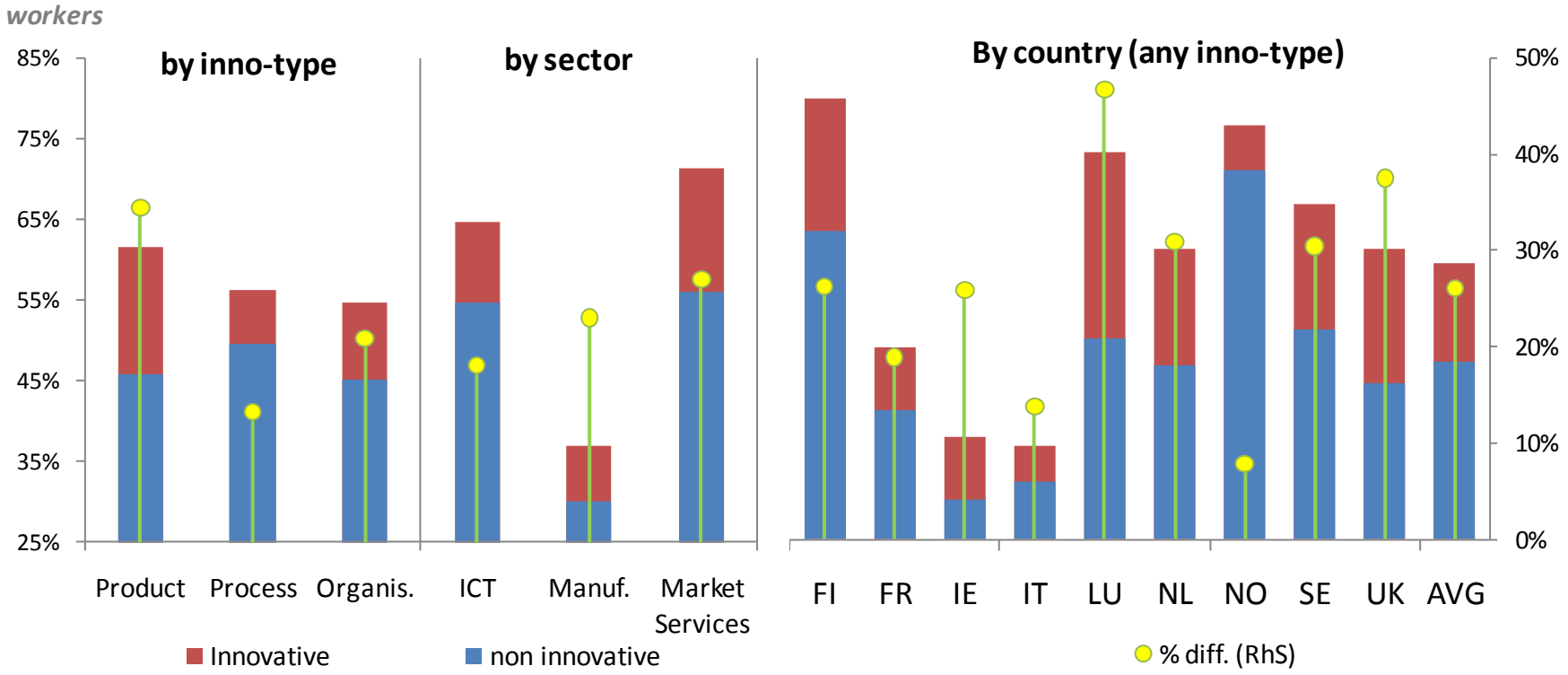
(pct)



Broadband enabled workers

(by type, sector, country)

BB enabled workers in innovative and non-innovative firms: % and % differences, year 2008



E-commerce variable
by industry indicator

EC:	SMPL	Broadpct		CRM	
		No	Yes	No	Yes
MNC	PS	37.9	50.2	16.5	29.1
Frgn	PS	33.2	43.2	14.7	24.7
Coop	IS	43.2	55.3	24.8	37.3
ProcInnov	IS	43.8	54.5	25.3	35.4

ICT & Innovative behaviour (2)

e-commerce

- Diffusion of both e-sales & e-purchases higher for innovative firms
  - **For e-Purchases**, differences reach 10 to 15% and are significant at the α=1% level for all types of innovation across all sectors, and for all countries
  - **For e-sales,** differences are smaller (around 5%), but (1%) significant for all types of innovation (although not for ICT industries) and all countries but FI (non significant) and NO (5%)

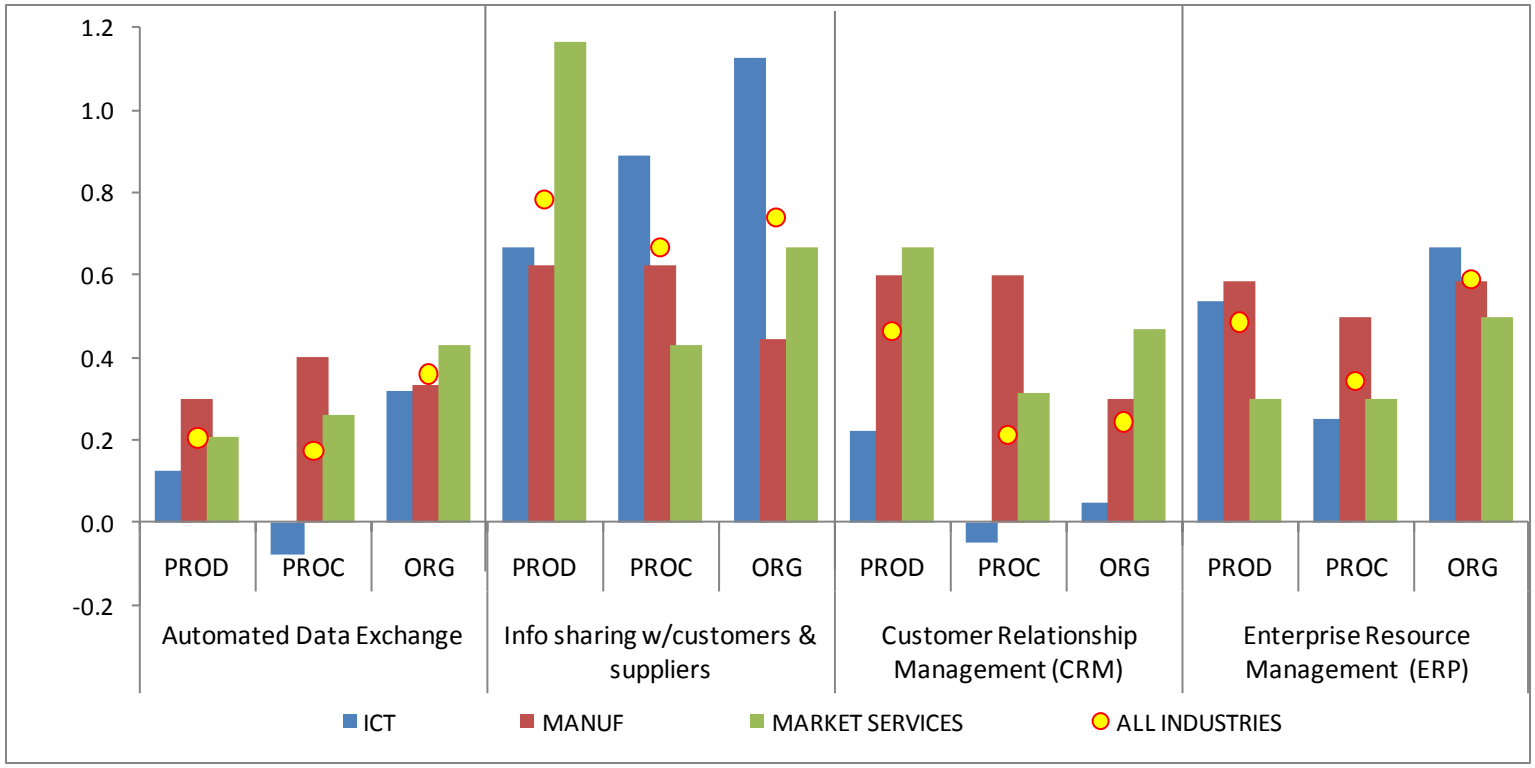
Participation to E-commerce for innovative and non-innovative firms: percentage differences., year 2008

ICT & Innovative behaviour (3)

IT tools

- The share of enterprises using IT tools is significantly higher among innovators
  - **This holds true for all innovation types and all tools considered**
  - **Differences are wider for info-sharing and ERP tools**; process inno slightly less relevant

Use of selected IT tools among innovators and non-innovators: percentage differences, year 2008

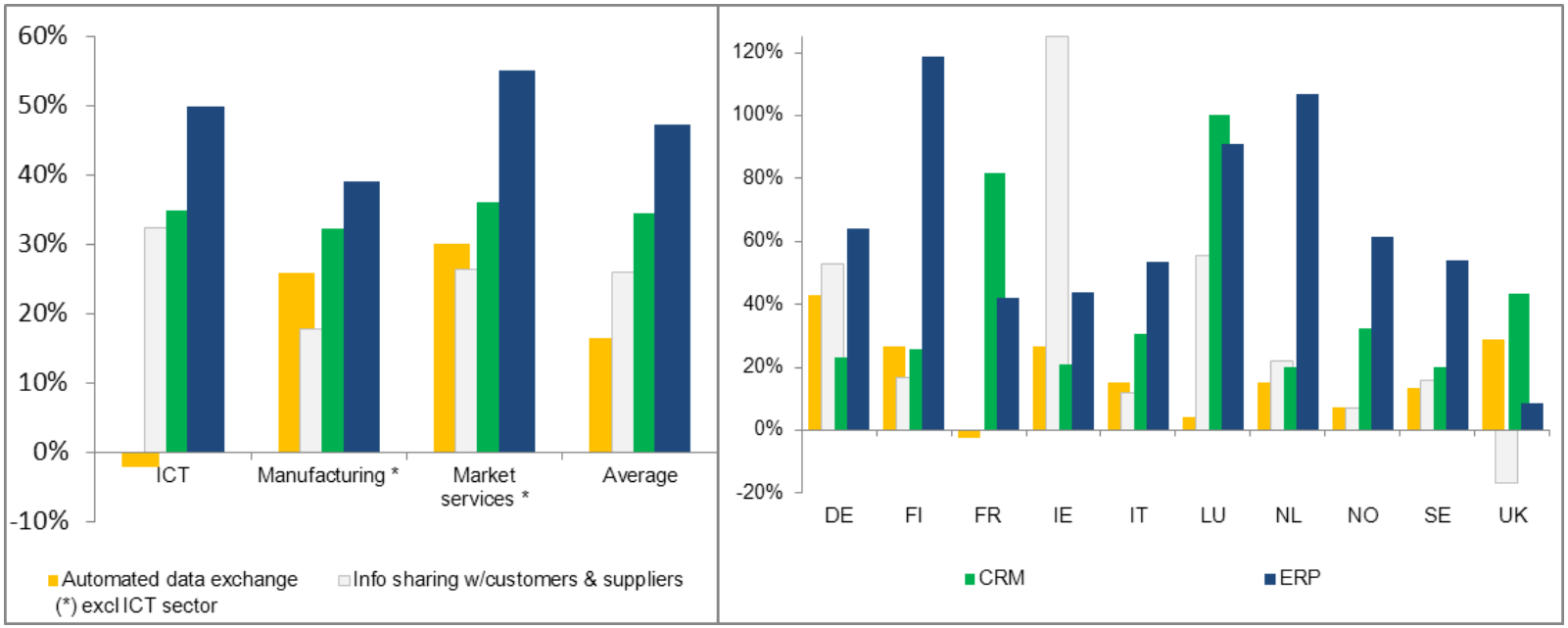


Behaviour and firm performance (HGE-1)

the use of IT tools

- IT tools are considerably more widespread amongst HGEs
  - **ERP** differences outstanding across sectors, followed by **CRM**
  - **Most countries** show a similar pattern, with CRM higher in some countries (FR, LU, UK). DE, IE and LU present considerable differences for **SISC** as well

Use of IT tools in HGE compared to the rest of firms: percentage differences., years 2007-2009

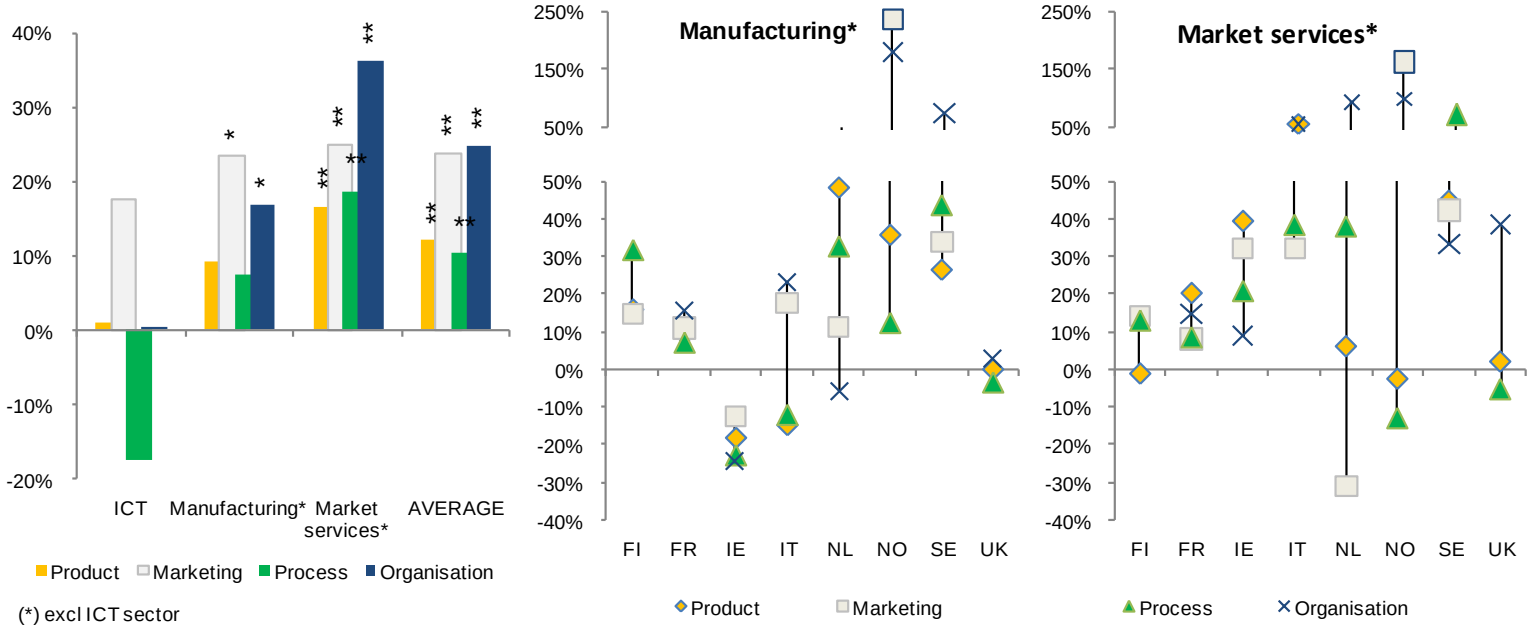


Behaviour and firm performance (HGE-2)

Innovation activity

- The share of innovative enterprises is much higher among HGEs
  - **Differences** with other enterprises **significant across all sectors** (but ICT) **and innovation type** (less process)
  - **Patterns vary remarkably among countries** & sectors

Innovation activity of HGE compared to the rest of firms: percentage differences., year 2008



Behaviour and firm performance (3)

Productivity

- Regression results point at a significant impact of IT use vars (given controls for size & sector) in most countries
- Innovation activity seems matters less…